



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,329	04/25/2000	Randolph A. Stern	STAN-09RE	9722
26875	7590	03/15/2004		
WOOD, HERRON & EVANS, LLP 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			EXAMINER JUSKA, CHERYL ANN	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 0204

Application Number: 09/558,329
Filing Date: April 25, 2000
Appellant(s): STERN ET AL.

Keith Haupt
For Appellant

EXAMINER'S ANSWER

MAILED
MAR 12 2004
GROUP 1700

This is in response to the reinstatement of appeal brief and supplemental appeal brief filed
October 6, 2003.

(1) Real Party in Interest

Art Unit: 1771

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is deficient because the Examiner contends that the invention requires the dual layered hydrophobic/hydrophilic web, which Appellants assert is merely a preferred embodiment.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Art Unit: 1771

Appellant's brief includes a statement that claims 1-87 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

US 4,026,129	Sternlieb	05-1977
US 4,128,686	Kyle et al.	12-1978
US 4,181,514	Lefkowitz et al.	01-1980
US 4,675,226	Ott	06-1987
US 5,356,402	Gillies et al.	10-1994
EP 261 904	Taylor	03-1988

(10) *Grounds of Rejection*

The following grounds of rejection are applicable to the appealed claims:

112 Rejections

I. Claims 30-87 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling.

The dual layer of hydrophobic/hydrophilic felt web critical or essential to the practice of the invention, but not included in the claims is not enabled by the disclosure. See *In re Mayhew*,

Art Unit: 1771

527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Appellant cites various sections of the original specification for providing support for new claims 30-87, which do not limit the felt web to the combination of hydrophobic and hydrophilic layers. However, the Examiner respectfully disagrees that said specification provides adequate support for the new claims. In particular, it is noted that the *Abstract, Summary of the Invention* (col. 1, lines 47-51), *Figures 2, 5, and 6-8* (reference numbers 14 and 16), and the *Detailed Description* (specifically, col. 2, lines 34-37; col. 2, lines 45-47; and col. 3, lines 20-23) all teach that the felt web has a hydrophobic component and a hydrophilic component. Thus, it is asserted that the original disclosure does not provide enablement for the newly claimed invention in that the hydrophobic and hydrophilic components of the felt web are critical or essential to the practice of the invention.

Additionally, it is asserted that the claims as presently written are broader in scope than the original disclosure. For example, claims 30-57, which are non-limiting to the phobicity/philicity of the web, and claims 58-64 and 70-79, which only require a hydrophobic component of the felt web, encompass a web consisting of only hydrophobic fibers (e.g. a polytetrafluoroethylene web), or even inorganic fibers (e.g., a fiberglass web), neither of which are disclosed in the specification and neither of which would be suited for utility as an absorbent incontinent pad. Claims 65-69 and 80-87, which only require a hydrophilic component of the web, encompass a web consisting of 100% hydrophilic fibers, which is not disclosed by the original specification and which would fail to provide the required wicking properties of the present invention.

Prior Art Rejections

I. Due to lack of an explicit definition in the specification, for the purposes of examination, Appellant's claim term "felt web" is interpreted in a broad sense as any nonwoven, web, or batting comprising discontinuous or staple fibers.

II. Claims 65 and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,026,129 issued to Sternlieb.

Sternlieb discloses a composite fabric comprising a nonwoven layer and woven reinforcing scrim, wherein said nonwoven and scrim are stitchbonded into a composite fabric (abstract). The nonwoven is preferably made from hydrophilic fibers (col. 2, lines 20-34). The stitchbonding is preferably a tricot stitch made by a warp knitting machine, such as an "Arachne" machine (col. 2, line 57-col. 3, line 2). The yarn for said stitchbonding is preferably spun polyester, which Appellant teaches as having inherently hydrophobic properties (Sternlieb, col. 3, lines 3-4 and specification, page 3, lines 10-12). It is asserted that the recitations to overlaps, underlaps, upper flat stitches, and lower loop stitches in the present claims are inherent to the disclosed stitchbonding method of Sternlieb. Thus, it can be seen that claims 65 and 67-69 are anticipated by the cited Sternlieb patent.

III. Claims 30-37 and 51-64 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,181,514 issued to Lefkowitz et al.

Lefkowitz discloses at least one nonwoven batt of relatively brittle fibers which is stitchbonded (abstract and col. 2, lines 55-61). The nonwoven batt may be made of one web folded upon itself or may comprise more than one batt (col. 2, lines 61-68). The stitchbonding yarns are preferably metallic or glass mono- or multi-filaments, both of which inherently possess

Art Unit: 1771

hydrophobic properties (col. 3, lines 1-4). The brittle fibers of the nonwoven batt may be glass, silica, ceramic, carbon, or graphite, all of which would inherently fall into the classification of hydrophobic fibers (col. 4, lines 19-24). The batt may be reinforced with a scrim (col. 3, lines 12-15). Figures 1, 2, and 5 show the claimed underlaps, overlaps, flat-stitches, and loop-stitches.

With regard to Appellant's limitations in claim 51 that the felt web is "adapted to retain fluid therein" and the stitch bonding yarns being hydrophobic "whereby to assist in wicking fluid into the felt web," it is asserted that neither limitation is hereby given patentable weight.

Specifically, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. In the instant case, a nonwoven batt of any fiber material will inherently have an ability to retain *at least some* fluid due to the nature of fiber entanglement in said batt and the nature of surface tension of water. Similarly, it has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish a claimed invention from the prior art. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957). Thus, it can be seen that the cited Lefkowitz patent anticipates Appellant's claims 30-37 and 51-64.

IV. Claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,675,226 issued to Ott.

Ott discloses a stitchbonded composite wiper comprising an outer nonwoven layer of thermoplastic fibers and an inner layer of cellulose webs (i.e., hydrophilic) (abstract). In one embodiment, the thermoplastic layer comprises meltblown discontinuous microfibers of polypropylene (hydrophobic) (claim 9, col. 6, lines 43-47). The layers are stitch bonded with

Art Unit: 1771

polyester yarns (hydrophobic) on either a Maliwatt or Malimo stitching machine (col. 3, lines 5-11), which would inherently produce Appellant's claimed underlaps, overlaps, flat-stitches, and loop stitches. Thus, it can be seen that the cited Ott patent anticipates Appellant's claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69.

V. Claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,356,402 issued to Gillies et al.

Gillies discloses a reusable incontinence pad comprising an interior hydrophobic layer, a median carded and crosslapped nonwoven layer of hydrophilic rayon fibers, and an outer layer of a waterproof polyurethane film (abstract and col. 5, lines 1-3). The hydrophilic layer is stitchbonded with hydrophobic polyester thread using a Mali, Mallymo, or Arachni stitchbonding machine (abstract and col. 5, lines 7-11 and lines 23-27), which inherently provides Appellant's claimed overlaps, underlaps, flat-stitches, and loop-stitches. The interior layer is preferably of web of hydrophobic polyester fibers (col. 3, lines 38-40). The outer barrier layer is bonded to the hydrophilic layer (col. 6, lines 58-60). Additionally, the outer layer may comprise a dual layer of the polyurethane film and a fabric layer (col. 6, lines 48-55). Furthermore, Gillies teaches the three layers are finished with a binding stitch around the periphery of said layers (col. 7, lines 1-5). Thus, it can be seen that Appellant's claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 are anticipated by the cited Gillies patent.

VI. Claims 2, 10, 11, 13, 21, 22, 31, 52, 57, 60, and 67 are rejected under 35 USC 103(a) as being unpatentable over the cited Ott patent.

Art Unit: 1771

With respect to claims 2, 13, 31, 52, 60, and 67, Ott fails to teach the use of a reinforcing scrim. However, the Examiner takes Official Notice that it is common and well known in the art to use scrims to reinforce nonwoven materials. As such, it would have been obvious to a person having ordinary skill in the art to utilize a reinforcing scrim in the wiper material of Ott. Such a modification would have been motivated by the desire to further enhance the strength of said wiper for better performance in the heavy duty wiping uses intended by Ott (abstract and col. 1, lines 5-29). The Examiner notes that the facts asserted to be common and well-known are capable of instant and unquestionable demonstration as being well-known. To adequately traverse such a finding, applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. Therefore, claims 2, 13, 31, 52, 60, and 67 are rejected as being obvious over Ott.

VII. Claims 1, 3-9, 12, 14-20, 23, 26-29, 37, 38, 43, 58, 61-64, 66, 70, 71, 73, 74, 76-79, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent.

Gillies teaches that the hydrophobic layer comprises "a soft hydrophobic web of polyester fibers which has been warp knitted tricot stitched to give the desired porosity" (col. 6, lines 7-10). Thus, Gillies teaches stitching the hydrophobic web and also separately stitching the hydrophilic web. Since it is well known in the art to stitchbond together more than one layer of nonwoven webs, and in particular, to stitchbond together a hydrophobic and hydrophilic web, as is evidenced by the cited Ott patent, it would have been obvious to one of ordinary skill in the art to employ a single stitchbonding process, rather than the two disclosed by Gillies. Motivation to

Art Unit: 1771

do so would be to eliminate a process step, while maintaining the desired porosity of the hydrophobic layer, and to improve the integrity of the two layers.

With respect to the claim limitation that the stitchbonded yarn is hydrophilic, it is noted that Gillies teaches the use of polyester stitching yarns. However, Ott teaches the stitchbonding yarn may be polyester, rayon, or a blended yarn (col. 2, lines 34-37), wherein rayon yarns are inherently hydrophilic yarns. Therefore, said claims are rejected as being obvious over the cited prior art.

VIII. Claims 10, 11, 21, 22, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claims 1, 12, and 51 above.

Said claims limit the stitchbonding yarn to being either a continuous filament yarn or a spun yarn. Gillies and Ott are silent with respect to the yarn type. Both patents merely teach the fiber type of said yarn and the yarn denier. Thus, without a specific teaching to either a filament or spun yarn, one of ordinary skill in the art would presume that both yarn types are suitable for the invention, as long as said yarn meets the fiber and denier requirements taught by Gillies and Ott. Appellant is hereby given Official Notice that filament and spun yarns are the two basic yarn types. The choice of which yarn type to employ in any given application is within the skill level of one versed in the textile arts. Factors which might determine said choice are availability, cost, and strength requirements. Therefore, the use of a filament or spun yarn in the Gillies and Ott inventions would have been obvious to one of ordinary skill in the art. Hence, said claims are rejected.

Art Unit: 1771

IX. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claim 23 above, and in further view of the cited Lefkowitz patent and US 4,128,686 issued to Kyle et al.

Claim 25 limits the first and second webs to be needlepunched into a single web.

Although neither Gillies nor Ott teach needlepunching the webs before stitchbonding, it is well-known in the art to needlepunch layers of webs together before stitchbonding. For example, Lefkowitz recites, "Prior to stitch-knitting, it is generally necessary to support the batt or increase the batt integrity so that it can be metered into the stitch-knitting machine without damage or separation." (Col. 4, lines 55-58). Lefkowitz prefers needling said batt to obtain the desired integrity (col. 4, lines 58-61). Additionally, Kyle teaches the use of an needlepunched integral nonwoven felt comprising one layer of absorbent fibers and a second layer of non-absorbent fibers for use in an incontinence pad (col. 6, lines 18-30). Thus, it would have been obvious to one of ordinary skill in the art to needlepunch the batt or web layers of the Gillies or Ott invention together before stitchbonding, in order produce an integral web with sufficient integrity to be fed into a stitchbonding machine. Therefore, claim 25 is rejected as being obvious over the cited art.

X. Claims 40 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of EP 261 904 issued to Taylor.

Claims 24 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claims 23 and 70 above, and in further view of EP 261 904 issued to Taylor.

Art Unit: 1771

Gillies teaches the barrier layer is mounted over the hydrophilic absorbent layer, but is silent with respect to the use of an adhesive to mount said barrier layer. However, it is well known in the art to adhesively mount a barrier layer to an absorbent layer. For example, Taylor teaches the use of a urethane adhesive to adhere a barrier layer to an absorbent layer of an incontinent pad (col. 7, lines 34-36). Thus, it would have been obvious to one of ordinary skill in the art to employ an adhesive, as is known in the art and evidenced by Taylor, in order to attach the Gillies barrier layer to the absorbent layer, with the expectation of obtaining an integrated laminate incontinent pad.

XI. Claims 31, 44, 45, 52, 67, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Sternlieb patent.

Claims 2, 13, 59, 60, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gillies patent in view of the cited Ott patent, as applied to claims 1, 12, 58, and 70 above, and in further view of the cited Sternlieb patent.

Gillies does not explicitly teach the use of a scrim layer for reinforcement of the absorbent layer. However, said use of a reinforcement is well known in the art, as is evidenced by the cited Sternlieb patent. Thus, it would have been obvious to one of ordinary skill in the art to employ a reinforcing scrim in the invention of Gillies in order to enhance the dimensional stability and durability of the reusable incontinence pad. Therefore, said claims are rejected as being obvious over the cited art.

XII. Claims 1-23, 25-39, 41-71, 73-81, and 83-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,128,686 issued to Kyle et al. in view of the cited Gillies, Ott, and/or Sternlieb patents.

Kyle discloses an incontinence pad comprising an absorbent hydrophilic layer and a non-absorbent hydrophobic layer (abstract). The absorbent layer is preferably a felt web of rayon fibers (col. 3, lines 9-15). The non-absorbent layer is preferably a needled felt nonwoven of hydrophobic fibers, such as nylon and polyester (col. 4, lines 51-56). The two layers “can be sewn, bonded, quilted or welded” to each other (col. 4, lines 65-66). Additionally, Kyle teaches the use of a scrim layer attached to the absorbent layer (col. 5, lines 1-10). Furthermore, Kyle teaches the use of a barrier sheet adjacent to the absorbent layer (col. 7, lines 57-61).

Thus, Kyle teaches the limitations of Appellant’s claims with the exception that the hydrophobic and hydrophilic layers are stitchbonded together. However, as previously noted, Kyle clearly teaches the two layers may be attached by several different methods. As noted in the cited Gillies, Ott, and Sternlieb art, stitchbonding is a well-known method of integrating layers of nonwoven webs. Additionally, it is asserted that it would have been obvious to one of ordinary skill in the art to stitchbond the layers together, as an alternative method of attachment. Motivation to employ stitchbonding would be the inherent benefits of stitchbonding, such as good integrity and dimensional stability, and the added wicking benefit that the stitch yarns would provide. Therefore, said claims are rejected as being obvious over the cited prior art.

XIII. Claims 24, 40, 72, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Kyle patent in view of the cited Gillies, Ott, and/or Sternlieb patents, as applied to claims 23, 39, 70, and 80 above, and in further view of the cited Taylor patent.

Kyle is silent with respect to the use of an adhesive to attach the barrier layer to the absorbent layer. However, it is well known in the art to adhesively mount a barrier layer to an absorbent layer. For example, Taylor teaches the use of a urethane adhesive to adhere a barrier

Art Unit: 1771

layer to an absorbent layer of an incontinent pad (col. 7, lines 34-36). Thus, it would have been obvious to one of ordinary skill in the art to employ an adhesive, as is known in the art and evidenced by Taylor, in order to attach the Kyle barrier layer to the absorbent layer, with the expectation of obtaining an integrated laminate incontinent pad.

(11) Response to 112, 1st Arguments

I. Appellant traverses the 112, 1st rejection by noting the proper test of enablement (i.e., whether one reasonably skilled in the art could make and/or use the invention from the specification's disclosure with information known in the art and without undue experimentation) (Appeal Brief, paragraph spanning pages 7-8). Specifically, Appellant argues that since at least one embodiment of a felt web is disclosed, one skilled in the art would be able to practice the invention as recited in claims 30-87. In response, it is argued that disclosure of a stitchbonded *facing/fluid-retaining* fabric comprised of a stitchbonded felt web having a *hydrophobic* felt web layer and a *hydrophilic* felt web layer is insufficient enablement for one skilled in the art to make and/or use a stitchbonded *facing/fluid-retaining* fabric commensurate in scope with the present claims: (a) stitchbonded felt web (claims 30-57), (b) a stitchbonded hydrophobic felt web (claims 58-64 and 70-79), or (c) a stitchbonded hydrophilic felt web (claims 65-69 and 80-87). The disclosure clearly teaches that the hydrophobic and hydrophilic layers are necessary for the invention.

It is reiterated that the entire disclosure of the invention is directed to facing/fluid-retaining stitchbonded fabric having a dual layer felt web. Specifically, the *Abstract, Summary of the Invention*, Figures 2, 5, and 6-8, and *Detailed Description* all teach that the stitchbonded

Art Unit: 1771

felt web is comprised of a dual layer of hydrophobic fibers and hydrophilic fibers. The disclosure states, "The present invention provides an improved fluid-retaining fabric such as may be substituted for the facing fabric and felt of the prior incontinent pads." (Col. 1, lines 44-46.) "Facing fabrics" are defined by the disclosure as a layer of an incontinent pad which functions to wick away fluid from a wearer's skin, thus providing a dry, comfortable surface against the skin (col. 1, lines 11-28). The disclosure defines the "felt" layer as functioning to absorb and retain fluids (col. 1, lines 11-28). Thus, it is reasserted that the present invention is directed to an improved single fabric which must perform both the wicking function of a facing fabric through the hydrophobic component and the absorption function of felt web through the hydrophilic component. Additionally, the disclosure teaches that the inventive "improved facing fabric" "incorporates the advantageous features of a felt layer without the added cost of separate manufacture of the facing fabric and the felt, and without the cost of the still-further quilting process" (col. 1, lines 63-67). Hence, another object of the present invention is to reduce cost by combining the dual functions of the facing layer and the felt layer into a single manufacturing step.

Thus, the Examiner reiterates that the disclosure is non-enabling for one skilled in the art to make and/or use a facing/fluid-retaining fabric comprising (a) a stitchbonded felt web, (b) a stitchbonded hydrophobic felt web, or (c) a stitchbonded hydrophilic felt web, which would sufficiently provide for the objects of the invention. In other words, the invention as recited in claims 30-87 is not limited to embodiments which are capable of both wicking and absorbing functions. This dual function can only be provided by the presence of both hydrophobic and hydrophilic components of the felt web. Since the disclosure clearly teaches the requirement of

Art Unit: 1771

both wicking and absorption, one skilled in the art would be at a loss as how to obtain the dual functions without the required hydrophobic and hydrophilic components. There is nothing in the disclosure which would enable one to do so.

Appellant asserts that the Examiner's position is incredibly illogical and that irrespective of the properties of the felt, one would be enabled to make the invention of claims 30-87 from a disclosure of either (i) two different layers of felt stitchbonded together or (ii) one ply with two different aspects with stitchbonding (Appeal Brief, page 8, lines 8-12). In response, it is argued that Appellant's own statement supports the Examiner's position. Specifically, Appellant agrees that the disclosure teaches "two different layers" or "two different aspects." These differences constitute the hydrophobic and hydrophilic nature of the fibers of the felt web. With such a teaching, how is one skilled in the art expected to make and use a stitchbonded felt, which achieves the objectives of the invention (i.e., both wicking and absorbing), without two different layers or aspects (i.e., only a single layer or aspect as presently claimed)?

II. Appellant also argues that the present art of incontinent pads is a predictable mechanical art in which broad claims can be enabled by the disclosure of a single embodiment (Appeal Brief, page 8, line 13-page 9, line 16). In response, it is noted that although claims need not be limited to a single or preferred embodiment, the "claims may be no broader than the supporting disclosure." *The Gentry Gallery Inc. v. The Berkline Corp.*, 45 USPQ2d 1498. Thus, a narrow disclosure will limit claim breadth. In the instant case, the claims are limited by the original narrow disclosure of a dual aspect felt layer required for the dual functions of wicking and absorption.

Art Unit: 1771

Appellant continues to argue that “a broad claim can be enabled by the disclosure of a single embodiment.” The Examiner does not disagree with this statement. However, the full scope of said broad claim must enable the invention to function as intended. Claims 30-87 do not enable the invention to function as intended, in that hydrophobic and hydrophilic components critical for the practice of the invention as originally disclosed are not included in said claims.

Additionally, it is noted that *Gould v. Mossinghoff*, 229 USPQ 1 at 14, states “A patent specification must be enabling as to ‘the invention’ as set forth in the claims. Thus, a disclosure may be insufficient for one claim but sufficient for another.” Hence, the Examiner asserts the stitchbonded fabric having both hydrophobic and hydrophilic aspects is not merely a single embodiment of a broader invention (i.e., a stitchbonded fabric), but rather “the invention” as set forth in the claims (i.e., a facing/fluid-retaining fabric for an incontinent pad).

III. Appellant also traverses the 112, 1st rejection and its citation of *In re Mayhew*, 188 USPQ 356 by arguing that *Mayhew* actually supports the Appellant’s position rather than the Examiner’s (Appeal Brief, paragraph spanning pages 9-10). Specifically, Appellant argues that *Mayhew* teaches a claim which omits a step required to make the invention operative (i.e., a cooling step) is non-enabling, while a claim which recites said step, but omits specific properties of said step (i.e., temperature) is enabled (Appeal Brief, page 10, lines 4-15). With respect to the present invention, Appellant argues that the “necessary ingredients for a stitchbonded fabric” (i.e., stitchbonding yarns and felt web) are claimed, while the preferred properties of said fabric (i.e., hydrophobic and hydrophilic) do not need to be claimed for said claim to be enabled (Appeal Brief, page 10, line 16-page 11, line 16).

Art Unit: 1771

The Examiner does not dispute the teachings of *Mayhew*. However, the invention as claimed is not merely a stitchbonded fabric, but rather a stitchbonded facing fabric (e.g., claim 30), a fluid-retaining fabric (e.g., claim 51), and an incontinent pad (e.g., claim 39). The specification clearly teaches the invention is an improved facing fabric or fluid-retaining fabric which incorporates the features of a facing fabric and an absorbent felt web into a single fabric for use in an incontinent pad (page 1, lines 44-67). As such, the properties of hydrophobic and hydrophilic are not merely preferences, but are properties which are required to produce a stitchbonded facing fabric, a fluid-retaining fabric, and an incontinent pad. A stitchbonded web without the dual aspects of hydrophobic and hydrophilic properties is inoperable as the intended invention. Thus, the Examiner disagrees with Appellant's position with respect to *In re Mayhew*.

IV. Additionally, Appellant traverses the 112, 1st rejection by asserting that the "omitted element test" is not the proper test for enablement (Appeal Brief, page 11, line 17-page 13, line 2). In response, the Examiner cites MPEP 2164.08(c) which states "an enablement rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made only when *the language of the specification makes it clear that the limitation is critical for the invention to function as intended.*" (Emphasis added) The Examiner reiterates that the original disclosure states clearly that the objective of the invention is to produce an improved facing/fluid-retaining fabric which combines the function of a hydrophobic facing fabric with the function of a hydrophilic felt web. Claims are limited to the breadth of the disclosure as originally filed. As such, it is reasserted that a critical feature of the invention is missing from claims 30-87 (i.e., the combination of a hydrophobic and hydrophilic felt web).

V. In the Request for Reinstatement of Appeal and Supplemental Appeal Brief, Appellant traverses the 112, 2nd rejections by asserting the claims pass the test of enablement according to factors set forth in *In re Wands*, 8 USPQ2d 1400. Said factors to be considered in determining if the claimed invention requires undue experimentation based upon the disclosure are (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

A. Starting the discussion of the *Wands* factors with the last item, breadth of the claims, the examiner contends the reasonable interpretations of claims 30-87 are broader than the disclosure. Specifically, a reasonable interpretation of claims 30-57 is a stitchbonded facing fabric, an incontinent pad, or a fluid retaining fabric comprising any and all felt webs having an upper surface and a lower surface. Similarly, a reasonable interpretation of claims 58-64 and 70-79 is a stitchbonded facing fabric or an incontinent pad comprising any and all felt webs having hydrophobic properties and an outer surface, while a reasonable interpretation of claims 65-69 and 80-87 is a stitchbonded facing fabric or an incontinent pad comprising any and all felt webs having hydrophilic properties and an outer surface. As discussed above in the scope of enablement rejection, a web consisting of polytetrafluoroethylene (PTFE) fibers or fiberglass, both of which have inherently hydrophobic properties, would read on the generic claims (i.e., 30-57) and the hydrophobic claims (i.e., 58-64 and 70-79). Yet, neither of these hydrophobic webs upon being stitchbonded as claimed would be able to function as the inventive facing fabric having both wicking and absorbing properties. One skilled in the art would not be able to make

Art Unit: 1771

and use a functional, according to the inventive disclosure (i.e., wicking and absorbing properties), facing fabric or incontinent pad without undue experimentation. Likewise, one skilled in the art would not be able to make and use a functional facing fabric or incontinent pad from a felt web consisting solely of hydrophilic fibers without undue experimentation. Thus, the examiner contends the breadth of claims 30-87 are such that the full scope of the claims are not enabled by the present disclosure.

Appellant argues that the broad claims 30-87 are enabled, since broad claims can be enabled by the disclosure of a single embodiment (Reinstatement Brief, page 13, 2nd paragraph). The examiner does not dispute this point. However, the scope of enablement must bear a “reasonable correlation” to the full scope of the claims. See, e.g., *In re Fisher*, 166 USPQ 18. As concerns the breadth of a claim relevant to enablement, the only relevant concern should be whether the scope of enablement provided to one skilled in the art by the disclosure is commensurate with the scope of protection sought by the claims. *In re Moore*, 169 USPQ 236. In the instant case, Appellant is seeking protection for things he did not invent since the full scope of the claims include embodiments other than those disclosed. Claims are not generally limited to the limitations and examples of the specification, but the full scope of said claims must be enabled. “The specification must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation’.” *In re Wright*, 27 USPQ2d 1510.

B. With respect to factor (1), the quantity of experimentation, the examiner contends any experimentation needed to make and use the full scope of the invention would be undue

Art Unit: 1771

since Appellant has explicitly said his invention requires both a hydrophobic web and a hydrophilic web in order to function properly.

Appellant asserts that little, if any, experimentation is necessary and such experimentation would be routine (Reinstatement Brief, page 6, 1st paragraph). Specifically, Appellant states, "The undeniable fact is that one of ordinary skill in the art of incontinent pads and similar products would readily utilize any number of felt web materials to practice the invention of claims 30-87, including but not limited to layers of hydrophobic/hydrophilic materials as disclosed in the '757 specification." (Reinstatement Brief, page 6, 2nd paragraph.) In response, it is argued that a great amount of non-routine experimentation would be required, even of one highly skilled in the art, to produce a facing fabric or incontinent pad comprising, for example, a PTFE felt web. The examiner knows of no readily available process of doing such. In particular, one would require undue experimentation in order to determine how to achieve the absorbing function of said facing fabric or incontinent pad since PTFE fibers are well known as non-absorbent, even repellent, fibers. Hence, production of the full scope of claims 30-87 cannot be achieved without undue experimentation.

C. This brings us to factor (2), direction/guidance presented in specification. Appellant asserts that sufficient and adequate direction and guidance is present (Reinstatement Brief, page 7, 1st paragraph). Specifically, Appellant asserts that their own prior art product ComPly[®] is a conventional felt which would guide one skilled in the art to a felt web that meets the requirements of claims 30-87 (Reinstatement Brief, page 7, 1st paragraph). In response, it is argued that the specification lacks guidance for the full scope of the invention as recited in claims 30-87. In fact, Appellant's disclosure of the ComPly[®] fabric only gives guidance to select

Art Unit: 1771

a dual hydrophobic/hydrophilic web, as is required to produce a properly functional facing fabric or incontinent pad. The ComPly[®] fabric or any other prior art cited in the disclosure does not provide guidance or direction to one skilled in the art for producing, for example, a facing fabric or incontinent pad comprising a PTFE felt web. The specification does not teach those of ordinary skill how to make and use the invention as broadly as it is claimed. Therefore, the examiner asserts this *Wands* factor is not satisfied.

D. Appellant asserts that the third *Wands* requirement is also satisfied in that the specification discloses the ComPly[®] fabric and two working examples (Reinstatement Brief, page 8, section 3). However, all three of the examples are directed to webs having the dual properties of hydrophobicity and hydrophilicity. In other words, the working examples in the specifications are very narrow compared to the wide breadth of the claims at issue. Hence, the specification lacks working examples that have a reasonable correlation to the full scope of the invention.

E. The fourth *Wands* factor is the nature of the invention. Appellant asserts the nature of the invention is a fluid-retaining product, wherein a stitchbonded yarn face eliminates the need for a separate facing fabric (Reinstatement Brief, page 9). Additionally, Appellant states, "The nature of this invention is to create through stitchbonding a less labor-intensive facing fabric with the yarn faces and thereby avoiding the need for the additional layer of facing fabric. In response, it is agreed that the nature of the invention is to create a less labor-intensive facing fabric, but disagrees that this is achieved solely by the stitchbonded face yarns. It is asserted that the invention is reliant upon the combination of the hydrophobic and hydrophilic webs to be functional.

F. Appellant asserts that the fifth *Wands* factor, the state of the prior art, is well established and that the present invention does not present a significant advancement in the art (Reinstatement Brief, page 10, 1st paragraph). The examiner agrees with this statement but disagrees that said state of the prior art would enable claims 30-87 without undue experimentation. Once again, it is asserted that disclosure is not enabling for the full scope of the claimed invention, despite the established state of the prior art.

G. With respect to the sixth factor, relative skill of those in the art, Appellant traverses on the ground that persons of ordinary skill would readily recognize the capability and characteristics of felt webs, hydrophilic materials, hydrophobic materials and related structures (Reinstatement Brief, page 10, section 6). The examiner does not dispute that one skilled in the art of textiles products such as incontinent pads would understand said hydrophobic and hydrophilic webs, but asserts that even one highly skilled in the art would require undue experimentation to produce and use the invention commensurate in scope with the breadth of the claims.

H. Appellant asserts the last factor of *Wands*, predictability of the art, is satisfied since the mechanical arts are highly predictable, and as such the broad claims of 30-87 can be enabled by the disclosure of a single embodiment of the invention (Reinstatement Brief, page 11, section 7). In response, it is agreed that the mechanical arts are reputed to be predictable. But, it is also asserted that said predictability is evidence of the amount of undue experimentation required to produce a product commensurate in full scope of the claimed invention. In other words, since it is well known that hydrophobic fibers cannot function as absorbent materials, it would require

Art Unit: 1771

one skilled in the art a great amount of non-routine experimentation to produce a facing fabric or incontinent pad comprising only a hydrophobic web.

VI. In summary, Appellant asserts that an analysis of the eight *Wands* factors establishes that claims 30-87 are enabled. The examiner respectfully disagrees. The reasonable interpretations of the claims are broader than the disclosed invention. In fact, the claims are so broad as to encompass embodiments which clearly cannot function as the intended invention. As such, one would require undue experimentation to determine how to produce a functional product within the full scope of the invention. "The specification must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation'." *In re Wright*, 27 USPQ2d 1510.

Additionally, it is noted that the *Wands* factors "are illustrative, not mandatory. What is relevant depends on the facts." *Amgen, Inc. v. Chugai Pharm. Co., Ltd.*, 18 USPQ2d 1016. The facts here clearly establish claims 30-87 are not enabled due to critical elements missing from the claims and to the breadth of said claims. The fact remains Appellants own disclosure teaches the criticality of said missing elements (i.e., hydrophobic and hydrophilic properties of the felt web) to the functionality of the invention.

Furthermore, in response to Appellants statement that the examiner "admitted that one skilled in the art would not require undue experimentation to determine suitable felt webs for this invention" (Reinstatement Brief, page 14, section 9, 2nd paragraph), it is noted that Appellant misunderstood the examiner's point. Said point was that, although Appellant did not explicitly disclose specifics of the individual hydrophobic and hydrophilic webs, said webs were enabled, in that knowledge of what constitutes a hydrophobic or hydrophilic web and how to make said

Art Unit: 1771

web is well understood by one skilled in the art. The examiner did not intended to express the claimed invention (i.e., facing fabric or incontinent pad) was enabled and would not require undue experimentation to produce according to the scope of the claims.

VII. With respect to Appellant's comments at the beginning of the Reinstatement Brief regarding the examiner's disregard for the Board's remand instructions, the following comments are made (Reinstatement Brief, pages 2-4). First, it is asserted that three of the four instructions were followed. Specifically, the Board instructed to the examiner to correct the inconsistency of the claim numbers for the 102 Sternlieb rejection (Remand, page 2, 1st paragraph). This typographical error was readily corrected in the next Office Action. Additionally, upon re-opening of prosecution, the Board instructed to review the Ott reference for rejecting a greater number of claims (Remand, page 2, 2nd paragraph). This was done in the next Office Action by adding claims 1, 3-9, 12, 14-20, and 38 to the 102 rejection by Ott and rejecting claims 2, 10, 11, 13, 21, 22, 31, 52, 57, 60, and 67 under 103 over Ott.

The Board also stated, "Should reconsideration [of the Ott rejection] result in a conclusion that some of the rejections are merely cumulative, those rejections should be withdrawn as merely cumulative rejections should be avoided." (Remand, page 2, last sentence). Thus, contrary to Appellants assertion this instruction was not ignored. It is the examiner's opinion that the prior art rejections that stand are not duplicative or cumulative in that each art reference is responsible for rejecting at least one claim that is not rejected by any other art. In particular, the Lefkowitz reference is required to anticipate claims 31, 52, 57, and 60, the Sternlieb reference is required to anticipate claim 67, the Ott reference is required to anticipate claims 1, 3-9, 12, 14-20, and 38, and the Gillies reference is required to anticipate claims 39, 41,

Art Unit: 1771

42, 46-50, 80, 83, 84, 86, and 87. The 103 rejections may be overlapped, but this is to ensure that as many claims are properly rejected with each primary reference in the event that any one of said primary references is overcome. Hence, the examiner carefully considered the Board's instruction with respect to duplicity.

Furthermore, the Board instructed the examiner to revisit the enablement issue with respect to the undue experimentation according to *In re Wands*. This is the only instruction not addressed in the Office Action. However, this was an honest mistake on the examiner's part in that said instruction was misunderstood. Specifically, the examiner misread said instruction to be addressed upon reinstatement of appeal. The examiner respectfully apologizes for any inconvenience this error may have caused.

(12) Response to Prior Art Arguments

I. Appellant traverses all the prior art rejections with one general argument regarding the claim limitation "yarn face" (Appeal Brief, page 14, line 3-page 15, lines 13). Appellant asserts said limitation is described by the specification (page 2, lines 52-63), which states a "top yarn face" above the upper surface of the felt web and a "bottom yarn face" below the lower surface of said felt web, wherein said faces are "effectively continuous such that web 12 is not exposed thereat, although small gaps or interstices (as at 28) between adjacent yarn segments 18' or 18" may allow viewing of felt surface 20 or 22 upon close inspection." Appellant asserts that none of the cited prior art teaches or fairly suggests the presently claimed yarn faces.

In response, it is first argued that the feature upon which Appellant relies (i.e., yarn faces which are effectively continuous such that the web is not exposed) is not recited in the rejected

claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). None of the claims state that the yarn faces must be “continuous” or even “effectively continuous.”

Secondly, it is argued that even if the term “effectively continuous” is read into the claim, said term is an indefinite relative term. The term “effectively continuous” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Specifically, ‘effectively continuous such that the web is not exposed except for small gaps which can be viewed upon close inspection’ is a subjective description. How continuous is “effectively continuous?” How small are the “small gaps or interstices?” How close is “upon close inspection?” The specification, as originally disclosed, provides no objective instruction as to what quantifies as “effectively continuous.” There is no mention of suitable stitch yarn diameters, stitch sizes, or stitch densities, which would guide one skilled in the art as to the scope of “effectively continuous.” Therefore, the Examiner contends Appellant’s general argument about the claimed “yarn faces” is found unpersuasive.

II. With respect to the Sternlieb anticipation rejection, Appellant argues that the reference “does not provide a ‘yarn face’ as is presently claimed,” and that the Examiner has previously “acknowledged this fact by withdrawing a prior anticipatory rejection of claims 30-36 and 51-56” (Appeal Brief, paragraph spanning pages 15-16). Appellant continues, “Thus, even Examiner understands that ‘yarn face’ as used in the present claims has the meaning Appellants ascribe to it in the specification.” In response, the Examiner contends that Appellant has

Art Unit: 1771

misunderstood the reason for withdrawal of said anticipation rejections. Said rejections were withdrawn due to Sternlieb's lack of a teaching to having yarn faces on *both* the top surface and bottom surface of the web. Specifically, Sternlieb's stitchbonding yarns of the upper surface of the web are not "above the felt web upper surface" as is recited in independent claims 30 and 51, but rather 'embedded' into the upper surface of the web. (Sternlieb, Figure 7). Hence, Sternlieb's stitchbonded fabric has only one face of stitchbonding yarns and the anticipation rejections of claims 30-36 and 51-56, which require both a top and bottom face, were withdrawn. At no point did the Examiner indicate agreement that the term "yarn face" is defined as a continuous or even "effectively continuous" yarn face.

Appellant also traverses the Sternlieb rejection by arguing that Sternlieb's yarn face 'exposes' a scrim layer due to "significantly spaced" yarns, while the present invention does not expose the scrim or felt web due to its continuous face (Appeal Brief, page 16, lines 6-22). This argument is unpersuasive in that, as previously noted, the present claims do not require the yarn faces to be continuous and/or the degree of continuity.

III. With respect to the Lefkowitz anticipation rejection, Appellant argues that invention cannot produce the claimed "yarn faces" due to the invention's use of metallic and/or glass filaments, which are not permeable. As such, the stitchbonding yarns must be spaced apart in order for the stitchbonded fabric to function as a filter medium (Appeal Brief, section (2), page 17, line 1-page 18, line 3). As such, Appellant believes the present invention is distinguished from said Lefkowitz patent. The Examiner respectfully disagrees. Again, the term "yarn face" does not limit the spacing of the yarn stitches. In a broad sense, said term merely limits the stitch yarns to being on the surface of said web (as opposed to the 'embedded' stitches of Sternlieb).

Art Unit: 1771

Said term does not imply any spacing of said stitch yarns. Thus, the features upon which applicant relies (i.e., yarn faces which are effectively continuous such that the web is not exposed) are not recited in the rejected claims. Also, even if said feature is read into the claim, it is reiterated that said limitation is relative and the Lefkowitz invention would still anticipate the claims.

IV. With respect to the Ott and Gillies anticipation rejections, Applicant argues that the disclosed stitches per inch produces a "low" stitch density, which "is not consistent with a yarn face according to Appellant's claimed invention" and which "necessarily creates large open gaps rather than an effectively continuous face" (Appeal Brief, sections (3) and (4), page 18, line 4-page 19, line 9). As argued above, the spacing of the stitch yarns which provide an "effectively continuous" yarn face is not presently claimed, nor does the specification *even suggest* what stitch density would be "consistent with a yarn face according to Appellant's claimed invention." An argument comparing a given stitch density (i.e., Ott and Gillies) to no teaching of a stitch density (i.e., Appellant) is not very convincing. Therefore, said anticipation rejections are maintained.

V. Regarding the 103 obviousness rejections, Appellant relies upon the traversal of the Sternlieb, Lefkowitz, Ott, and Gillies anticipation rejections. Since Appellants traversal of said anticipation rejections has been found unpersuasive, the obviousness rejections have been maintained for the reasons of record.

VI. With respect to the prior art rejection of claims 1-29, Appellant argues that the Examiner's motivation to eliminate a step which is necessary for the product of Gillies

Art Unit: 1771

is “flimsy” and “hardly persuasive” (Appeal Brief, section 3, page 20, line 6-page 21, line 2). In response, it is noted that Gillies clearly teaches a incontinence pad comprising an inner hydrophobic web, a middle absorbent layer, and an outer waterproof layer (Gillies, col. 3, lines 36-50). The absorbent layer is stitchbonded (col. 5, lines 1-11). The hydrophobic inner layer is also knit stitchbonded to give a desired porosity (col. 6, lines 5-13). The hydrophobic wicking inner layer, the middle absorbent layer, and the outer waterproof layer are then stitched together at the peripheral edges (col. 7, lines 1-5). Since stitchbonding together of a hydrophobic web and hydrophilic web is known in the art (i.e., Ott), it would have been obvious to one of ordinary skill in the art to combine the two separate stitchbonded layers of Gillies into a single stitchbonded web, as is known in the art. Motivation to do so would be to eliminate a process step while maintaining the desired porosity and to provide an integral web resistant to delamination. Thus, the Examiner contends that the provided motivation is anything but “flimsy,” in that there are clear advantages to the proposed modification of the Gillies invention that one skilled in the art would readily recognize.

VII. With respect to the obviousness rejection of claims 1-29 based upon the cited Kyle patent, Appellant traverses by arguing “the Kyle product requires an ‘upper sheet 25’ or ‘protective sheet 41,’ which the present invention does not require (Appeal Brief, page 21, lines 3-9). Hence, Appellant concludes that the present invention cannot be obvious over Kyle. In response, it is noted that Kyle’s “upper sheet 25” is of “brushed nylon” which is adjacent to the absorbent sheet 23 (col. 8, lines 3-10 and Figure 3, 5, and 8). The “brushed nylon” layer is previously taught to be the hydrophobic inner layer (col. 4, lines 51-64). The “protective sheet 41” is taught by Kyle to be optional. Thus, Appellant’s conclusion is found unpersuasive in that

Art Unit: 1771

the proposed combination of art would not destroy the intent of the Kyle invention, and, in fact, would enhance said invention by eliminating a process step and by forming an integral hydrophobic layer and absorbent layer.

VIII. In the Reinstatement Brief, Appellant traverses the prior art rejections by first asserting that the examiner has neglected to follow the Board's instruction with respect to cumulative rejections (Reinstatement Brief, pages 15 and 16). In addition to the comments made above, the examiner notes that the added art rejections based upon Ott made in the re-opening of prosecution were by direct instruction from the Board. Additionally, it is reiterated that it is the examiner's opinion that the numerous prior art rejections are necessarily to properly reject all the claims.

With respect to the new Ott rejections, Appellant traverses the use of Official Notice that it is common and well known in the art to employ scrims to reinforce nonwoven materials (Reinstatement Brief, page 17). Specifically, Appellant requests evidence in support of said Official Notice. In response, Appellant's attention is directed to the abstract of the cited Sternlieb patent and col. 3, lines 12-15 of the cited Lefkowitz patent, both of which teach the use of reinforcing scrims.

It is noted that Appellant has not traversed the new 102 rejection of claims 1, 3-9, 12, 14-20, and 38 as being anticipated by Ott. However, Appellant continues to assert the examiner's misinterpretation of the term "yarn face." In response, it is reiterated that the specification limitation of "effectively continuous" yarn face is read into the claim. Even if it is, it is asserted that said term is relative in that the specification does not suggest a particular stitch density or

Art Unit: 1771

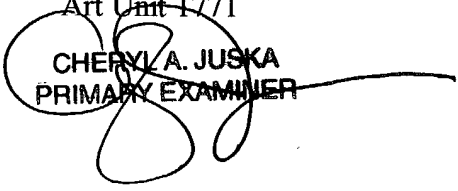
yarn denier required. As such, said relative term cannot be relied upon for distinguishing the present invention from the prior art.

In summary, it is held that claims 30-87 are non-enabled by the specification as originally disclosed in that the critical features of hydrophobic and hydrophilic aspects necessary for the intended invention of an improved facing/fluid-retaining fabric for an incontinent pad is not recited in said claims. Additionally, it is held that claims 1-87 are either anticipated by or unpatentable over the prior art as set forth above, in that the claim recitation of "yarn face" does not limit said yarn face to being "effectively continuous" or to what degree said yarn face is continuous. Therefore, for the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Cheryl Juska
Primary Examiner
Art Unit 1771

CHERYL A. JUSKA
PRIMARY EXAMINER



cj
March 8, 2004

Conferees
Cynthia Kelly 
Terrel Morris - 

Kurt L Grossman Esq
Wood Herron & Evans L L P
2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202-2917